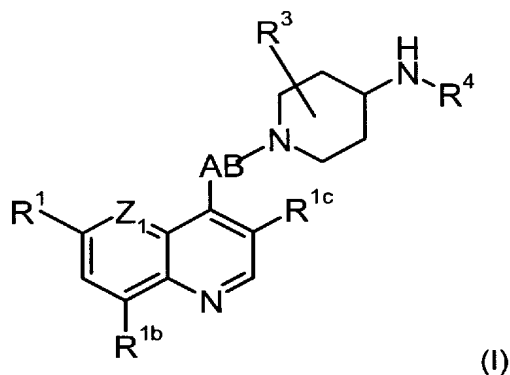


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Amendments to the claims

Listing of claims:

1. (Currently amended) A compound according to formula (I):



wherein:

Z₁ is N or CR^{1a};

R¹ and R^{1a} are independently selected from H, nitro, halogen, (C₁₋₃)alkylthio, (C₁₋₃)alkyl, and (C₁₋₃)alkoxy optionally substituted by (C₁₋₃)alkoxy; or R¹ and R^{1a} are joined together to form ethylenedioxy;

R^{1b} is H or halogen;

with the proviso that when Z₁ is N, then R^{1b} is H and when Z₁ is CR^{1a} then R¹ is not H;

R^{1c} is halogen;

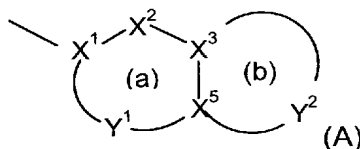
AB is CHR⁶-CO or CHR⁶-CH₂;

R⁶ is H, NH₂, -CH₂OH, or hydroxy;

R³ is up to two substituents selected from H, ~~halogen~~, (C₁₋₃)alkyl, hydroxy(C₁₋₃)alkyl, CONH₂, COOH, -CH₂CONH₂, -CH₂COOH, -CONHCH₃, and hydroxy in the 3-position optionally substituted by (C₁₋₃)alkyl;

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R^4 is a group $-U-R^5$ where R^5 is a substituted or unsubstituted bicyclic carbocyclic or heterocyclic ring system (A):



containing up to four heteroatoms in each ring in which

at least one of rings (a) and (b) is aromatic;

X^1 is C or N when part of an aromatic ring or CR^{14} when part of a non aromatic ring;

X^2 is N, NR^{13} , O, $S(O)_x$, CO or CR^{14} when part of an aromatic or non-aromatic ring or may in addition be $CR^{14}R^{15}$ when part of a non aromatic ring;

X^3 and X^5 are independently N or C;

Y^1 is a 0 to 4 atom linker group each atom of which is independently selected from N, NR^{13} , O, $S(O)_x$, CO and CR^{14} when part of an aromatic or non-aromatic ring or may additionally be $CR^{14}R^{15}$ when part of a non aromatic ring,

Y^2 is a 2 to 6 atom linker group, each atom of Y^2 being independently selected from N, NR^{13} , O, $S(O)_x$, CO and CR^{14} when part of an aromatic or non-aromatic ring or may additionally be $CR^{14}R^{15}$ when part of a non aromatic ring;

each of R^{14} and R^{15} is independently selected from H; (C_{1-4}) alkylthio; halo; (C_{1-4}) alkyl; (C_{2-4}) alkenyl; hydroxy; hydroxy (C_{1-4}) alkyl; mercapto (C_{1-4}) alkyl; (C_{1-4}) alkoxy; trifluoromethoxy; nitro; cyano; carboxy; amino or aminocarbonyl optionally substituted by (C_{1-4}) alkyl; each R^{13} is independently H; trifluoromethyl; (C_{1-4}) alkyl optionally substituted by hydroxy, carboxy, (C_{1-4}) alkoxy, (C_{1-6}) alkylthio, halo or trifluoromethyl; (C_{2-4}) alkenyl; or aminocarbonyl wherein the amino group is optionally substituted (C_{1-4}) alkyl;

each x is independently 0, 1 or 2; and

U is CO, SO_2 or CH_2 ;

or a pharmaceutically acceptable salt thereof.

2. (Original) A compound according to claim 1 wherein R^1 is F, Cl, OCH_3 , methyl, or SCH_3 .

3. (Currently amended) A compound according to claim 1 wherein R^{1a} is H, OCH_3 , or $OCH_2CH_2OCH_3$.

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4. (Original) A compound according to claim 1 wherein R^{1b} is H or F.
5. (Original) A compound according to claim 1 wherein R^{1c} is Cl or F.
6. (Original) A compound according to claim 1 wherein R³ is H, OH, OCH₃, or CH₂OH.
7. (Original) A compound according to claim 1 wherein R⁶ is H or OH.
8. (Original) A compound according to claim 1 wherein the group -U- is -CH₂-.
9. (Currently amended) A compound according to claim 1 wherein R⁵ is:
benzo[1,2,5]thiadiazol-5-yl;
4H-benzo[1,4] thiazin-3-one-6-yl;
2,3-dihydro-benzo[1,4]dioxin-6-yl;
benzo[1,2,3]thiadiazol-5-yl;
3-oxo-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl;
7-fluoro-3-oxo-3,4-dihydro-2H-benzo[1,4] oxazin-6-yl;
2-oxo-2,3-dihydro-1H-pyrido[2,3-b][1,4]thiazin-7-yl;
2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-yl;
3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-yl;
[1,2,3]thiadiazolo[5,4-b]pyridin-6-yl;
3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl;
7-chloro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl; or
7-fluoro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl; or
2-oxo-2,3-dihydro-1H-pyrido[3,4-b][1,4]thiazin-7-yl.
10. (Currently amended) A compound according to claim 1 which is selected from:
6-({1-[(Racemic)-2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-2-hydroxy-ethyl]-piperidin-4-ylamino}-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one
Dihydrochloride;
(Racemic)-1-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-2-{4-[(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-piperidin-1-yl}-ethanol
Dihydrochloride;
{1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amine Dihydrochloride;

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{1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amine Dihydrochloride;

6-(((cis)-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one Dihydrochloride Enantiomer 1;

6-(((cis)-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one Dihydrochloride Enantiomer 2;

6-(((cis)-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Dihydrochloride Enantiomer 1;

6-(((cis)-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Dihydrochloride Enantiomer 2;

6-(((cis)-1-[2-(3-Chloro-6-methoxy- [1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one Dihydrochloride Enantiomer 1;

6-(((cis)-1-[2-(3-Chloro-6-methoxy- [1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one Dihydrochloride Enantiomer 2;

6-(((cis)-1-[2-(3-Chloro-6-methoxy- [1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Dihydrochloride Enantiomer 1;

6-(((cis)-1-[2-(3-Chloro-6-methoxy- [1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Dihydrochloride Enantiomer 2;

6-({1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]piperidin-4-yl amino)methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Trihydrochloride;

6-({1-[2-(3-chloro-6-methoxyquinolin-4-yl)ethyl]piperidin-4-yl amino)methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one Trihydrochloride;

6-({1-[2-(3-Chloro-6-methoxynaphthyridin-4-yl)ethyl]piperidin-4-yl amino)methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Dihydrochloride;

6-({1-[2-(3-chloro-6-methoxynaphthyridin-4-yl)ethyl]piperidin-4-yl amino)methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one Dihydrochloride;[[.]]

6-(((trans)-1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]3-hydroxypiperidin-4-yl amino)methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Trihydrochloride enantiomer 2;

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6-(((trans)-1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]3-hydroxypiperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one Trihydrochloride enantiomer 2;

6-(trans)-1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]3-hydroxypiperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Trihydrochloride enantiomer 1;

6-(trans)-1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]3-hydroxypiperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one Trihydrochloride enantiomer 1;

6-({1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]4-hydroxymethylpiperidin-4-ylamino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;

6-({1-[2-(3-Chloro-6-fluoro-5-methoxy-quinolin-4-yl)-ethyl]-piperidin-4-ylamino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;

6-({1-[2-(3-Chloro-6-methyl-[1,5]naphthyridin-4-yl)-ethyl]-piperidin-4-ylamino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;

{1-[2-(3-Chloro-6-methyl-[1,5]naphthyridin-4-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amine Dihydrochloride;

6-({1-[2-(3-Chloro-6-fluoro-quinolin-4-yl)-ethyl]-piperidin-4-ylamino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;

{1-[2-(3-Chloro-6-fluoro-quinolin-4-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amine Dihydrochloride;

6-({1-[2-(3, 6-Dichloro-quinolin-4-yl)-ethyl]-piperidin-4-ylamino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;

{1-[2-(3,6-Dichloro-quinolin-4-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amine Dihydrochloride;

(cis)-1-[2-(3-Chloro-6-methoxy- [1,5]naphthyridin-4-yl)-ethyl]-4-[(2,3-dihydro-[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amino]-piperidin-3-ol Dihydrochloride Enantiomer 1;

(cis)-1-[2-(3-Chloro-6-methoxy- [1,5]naphthyridin-4-yl)-ethyl]-4-[(2,3-dihydro-[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amino]-piperidin-3-ol Dihydrochloride Enantiomer 2;

6-({1-[2-(3-Fluoro-6-methoxyquinolin-4-yl)ethyl]piperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one dihydrochloride;

{1-[2-(3-Fluoro-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amine dihydrochloride;

cis-4-[(2,3-Dihydro-[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amino]-1-[2-(3-fluoro-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-3-ol Enantiomer 2 dihydrochloride;

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cis-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-1-[2-(3-fluoro-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-3-ol dihydrochloride
~~dihydrochloride~~ Enantiomer 1;

{1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-2-hydroxyethyl]-piperidin-4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amine Dihydrochloride Enantiomer 1;

6-({1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-2-hydroxy-ethyl]-piperidin-4-ylamino}-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Dihydrochloride Enantiomer 1;

6-({1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-2-hydroxy-ethyl]-piperidin-4-ylamino}-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Dihydrochloride Enantiomer 2;

~~6-(trans)-1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]-3-hydroxypiperidin-4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)amine Enantiomer 2;~~

(trans)-6-({1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino}-methyl)-4H-pyrido[3,2-b][1,4]-thiazin-3-one Dihydrochloride Enantiomer 2;

trans-6-({1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino}-methyl)-4H-pyrido[3,2-b][1,4] oxazin-3-one Trihydrochloride Enantiomer 2;

trans-6-({1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino}-methyl)-4H-pyrido[3,2-b][1,4] thiazin-3-one dihydrochloride Enantiomer 1;

6-({(3R,4r,5S)-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-3,5-dihydroxy-piperidin-4-ylamino))-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one dihydrochloride;

6-({1-[2-(3-Fluoro-6-methoxyquinolin-4-yl)ethyl]piperidin-4-yl amino}methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one dihydrochloride;

{1-[2-(3-Bromo-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amine Dihydrochloride;

cis-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-4-[(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-piperidin-3-ol Dihydrochloride Enantiomer 1;

cis-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-4-[(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-piperidin-3-ol Dihydrochloride Enantiomer 2;

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1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-N-(2,3-dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-4-piperidinamine dihydrochloride;

7-[[1-{2-[3,8-Difluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinyl]amino]methyl]-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride;

6-[[1-{2-[3,8-Difluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinyl]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride dihydrochloride;

6-[[1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinyl]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;

1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-N-([1,3]dioxolo[4,5-*c*]pyridin-6-ylmethyl)-4-piperidinamine dihydrochloride;

{1-[2-(9-Chloro-2,3-dihydro-[1,4]dioxino[2,3-*f*]quinolin-10-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amine dihydrochloride;

N-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine dihydrochloride;

N-(2,3-Dihydro-1*H*-pyrido[3,4-*b*][1,4]thiazin-7-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine dihydrochloride;

6-[[1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;

7-[[1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl]amino]methyl]-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride;

3-[[1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl]amino]methyl]-8-hydroxy-1(2*H*)-isoquinolinone dihydrochloride;

3-[[1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl]amino]methyl]-5*H*-pyridazino[3,4-*b*][1,4]thiazin-6(7*H*)-one dihydrochloride;

6-[[1-{2-[3-Fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;

N-(2,3-Dihydro[1,4]oxathiino[2,3-*c*]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine dihydrochloride;

1-{2-[3-Fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-N-([1,3]oxathiolo[5,4-*c*]pyridin-6-ylmethyl)-4-piperidinamine dihydrochloride;

7-Fluoro-N-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide dihydrochloride;

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N-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl)-2-oxo-2,3-dihydro-1*H*-pyrido[2,3-*b*][1,4]thiazine-7-carboxamide dihydrochloride;

~~— *N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide;~~

~~— *N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]oxazine-6-carboxamide;~~

(3*R*,4*S*)-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride
Enantiomer 1;

6-[[[(3*R*,4*S*)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;

6-[[[(3*R*,4*S*)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;

(3*R*,4*S*)-4-[(2,3-dihydro[1,4]dioxino[2,3-*b*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride;

6-[[[(3*S*,4*R*)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer 2;

N-[(3*S*,4*R*)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide hydrochloride Enantiomer 2;

7-[[[(3*R*,4*S*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride
Enantiomer 1;

6-[[[(3*R*,4*S*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride
Enantiomer 1;

(3*R*,4*S*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol dihydrochloride
dihydrochloride Enantiomer 1;

6-[[[(3*R*,4*S*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;

~~— *N*[(4-fluoro-1*H*-benzimidazol-2-yl)methyl]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine;~~

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1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-*N*-(1,5,6,7-tetrahydro-1,8-naphthyridin-2-ylmethyl)-4-piperidinamine dihydrochloride;

N-(3-cinnolinylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

N-(2,1,3-benzothiadiazol-5-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-*N*-([1,3]thiazolo[5,4-*b*]pyridin-6-ylmethyl)-4-piperidinamine dihydrochloride;

N-(3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazin-6-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

N-(1,3-benzothiazol-5-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-*N*-([1,2,3]thiadiazolo[5,4-*b*]pyridin-6-ylmethyl)-4-piperidinamine dihydrochloride;

7-[[1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinyl]amino]methyl)-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride;

N-(2,3-dihydro[1,4]dioxino[2,3-*b*]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

N-(2,3-dihydro[1,4]oxathiino[2,3-*c*]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-*N*-methyl-4-piperidinecarboxamide dihydrochloride;

4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinecarboxamide dihydrochloride;

4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-*N*-methyl-4-piperidinecarboxamide dihydrochloride;

4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinecarboxamide dihydrochloride;

1-{2-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-4-piperidinecarboxamide dihydrochloride;

(4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinyl)methanol dihydrochloride;

N-[1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-(hydroxymethyl)-4-piperidinyl]-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide hydrochloride;

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N-(1-{2-[3-fluoro-6-(methoxy)-4-quinolinyl]ethyl}-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]oxazine-6-carboxamide hydrochloride;

N-(1-{2-[3-fluoro-6-(methoxy)-4-quinolinyl]ethyl}-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide hydrochloride;

7-[[[(3*R*,4*S*)-1-{2-[3-fluoro-6-(methoxy)-4-quinolinyl]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride Enantiomer 1;

6-[[[(3*R*,4*S*)-1-{2-[3-chloro-8-fluoro-6-(methoxy)-4-quinolinyl]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer 1;

(3*R*,4*S*)-1-{2-[3-chloro-8-fluoro-6-(methoxy)-4-quinolinyl]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol dihydrochloride;

2-{4-[(2,3-Dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}-1-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethanol Dihydrochloride Hydrate Enantiomer 1;

2-{4-[(2,3-Dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}-1-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethanol Dihydrochloride Hydrate Enantiomer 2;

racemic, cis 4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinyl)methanol dihydrochloride;

racemic, cis-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinecarboxylic acid dihydrochloride;

racemic, cis-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinecarboxamide dihydrochloride;

1-{2-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-*N*-[(6-oxido-2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-yl)methyl]-4-piperidinamine dihydrochloride;

6-[[[1-{2-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]-3-hydroxypropyl]-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;

6-[[[1-{2-(3,6-difluoro-4-quinolinyl)ethyl}-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;

1-[2-(3,6-difluoro-4-quinolinyl)ethyl]-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-4-piperidinamine hydrochloride dihydrochloride;

6-[[[1-{2-(3,6-difluoro-4-quinolinyl)ethyl}-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;

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6-([(1-{2-[3-chloro-6-fluoro-5-(methoxy)-4-quinoliny]-1-methylethyl}-4-piperidinyl)amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;

1-{2-[3-chloro-6-fluoro-5-(methoxy)-4-quinoliny]ethyl}-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-4-piperidinamine dihydrochloride;

1-[2-(6-chloro-3-fluoro-4-quinoliny)ethyl]-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-*N*-methyl-4-piperidinecarboxamide dihydrochloride;

2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}-1-[3-fluoro-6-(methoxy)-4-quinoliny]ethanol dihydrochloride

Enantiomer 2;

6-([(trans-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride

Enantiomer E2;

6-([(trans-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride

Enantiomer E2;

trans-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride

Enantiomer E2;

6-([(trans-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidinyl)amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride

Enantiomer E2;

trans-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-3-piperidinol dihydrochloride;

N-trans-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide hydrochloride Enantiomer E2;

N-trans-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)-2,3-dihydro[1,4]dioxino[2,3-*c*]pyridine-7-carboxamide hydrochloride Enantiomer E2;

racemic, trans-6-([(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-3-methyl-4-piperidinyl)amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;

Trans-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-methyl-3-piperidinol dihydrochloride;

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6-~~{[trans-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-methyl-4-piperidinyl]amino}methyl}~~-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E1;

Trans-4-~~[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-3-piperidinol~~ dihydrochloride;

6-~~{[trans-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-methyl-4-piperidinyl]amino}methyl}~~-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E2;

Trans-4-~~[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-3-piperidinol~~ dihydrochloride;

N-(3,4-dihydro-2*H*-pyrano[2,3-*c*]pyridin-6-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine dihydrochloride;

~~—{[(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl)amino}methyl]-3,4-dihydro-1,8-naphthyridin-2(1*H*)-one;~~

~~—7-{[(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl)amino}methyl]-2,3-dihydro-1,5-benzothiazepin-4(5*H*)-one;~~

trans-4-~~[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol~~ dihydrochloride Enantiomer E1;

6-~~{[(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)amino}methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one~~ dihydrochloride;

~~—trans-6-{[(1-{2-[3-fluoro-6-(methoxy)-4-quinolinyl]ethyl}-3-hydroxy-4-piperidinyl)amino}methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one~~ Enantiomer E1;

trans-4-~~[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinolinyl]ethyl}-3-piperidinol~~ dihydrochloride;

trans-6-~~{[(1-{2-[3-fluoro-6-(methoxy)-4-quinolinyl]ethyl}-3-hydroxy-4-piperidinyl)amino}methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one~~ dihydrochloride;

trans-N-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide hydrochloride Enantiomer E1;

trans-N-((3*R*,4*R*)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]oxazine-6-carboxamide Isomer E1 hydrochloride;

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trans-*N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)-2,3-dihydro[1,4]dioxino[2,3-*c*]pyridine-7-carboxamide Isomer E1 hydrochloride;

~~6-[[trans-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one Enantiomer E1;~~

6-[[1-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;

6-[[1-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;

N-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-4-piperidinamine dihydrochloride;

~~*N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-4-piperidinyl)-2,3-dihydro-1,4-benzodioxin-6-sulfonamide;~~

cis-6-[[1-(1-{2-[3-chloro-8-fluoro-6-(methoxy)-4-quinolinyl]ethyl}-3-fluoro-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer 1;

cis-1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-3-fluoro-4-piperidinamine dihydrochloride Enantiomer 1;

cis-1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-3-fluoro-4-piperidinamine dihydrochloride Enantiomer 2;

cis-6-[[1-(1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-3-fluoro-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride, Enantiomer 1;

cis-6-[[1-(1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-3-fluoro-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride, Enantiomer 2;

cis-1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-*N*-(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)-3-fluoro-4-piperidinamine dihydrochloride, Enantiomer 1;

cis-1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-*N*-(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)-3-fluoro-4-piperidinamine dihydrochloride, Enantiomer 2;

cis-6-[[1-(1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-3-fluoro-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride, Enantiomer 1;

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cis-6-[(1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-3-fluoro-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride, Enantiomer 2;

cis-*N*-(1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-3-fluoro-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide hydrochloride Enantiomer 1;

6-[[[(3*S*,4*R*)-1-{2-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E2;

trans-6-[(1-{2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl}-3-hydroxy-piperidin-4-ylamino)-methyl]-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one trihydrochloride Enantiomer 1;

~~trans 1 {2 [3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol Enantiomer 1;~~

~~trans 1 {2 [3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol Enantiomer 2;~~

2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}-1-[3-fluoro-6-(methoxy)-4-quinoliny]ethanol dihydrochloride Enantiomer 1;

~~*N*-(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine;~~

(3*S*,4*R*)-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride Enantiomer 2;

(3*R*,4*S*)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-[[1,3]oxathiolo[5,4-*c*]pyridin-6-ylmethyl)amino]-3-piperidinol dihydrochloride Enantiomer E1;

~~6-[[1-{2-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one;~~

~~1-{2-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]ethyl}-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-4-piperidinamine;~~

(3*S*,4*R*)-1-{2-(3,6-dichloro-4-quinoliny)ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol dihydrochloride Enantiomer E2;

6-[[[(3*S*,4*R*)-1-{2-(3,6-dichloro-4-quinoliny)ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E2;

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(3*S*,4*R*)-1-[2-(3-chloro-6-fluoro-4-quinoliny)ethyl]-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol dihydrochloride Enantiomer E2;

6-[[[(3*S*,4*R*)-1-[2-(3-chloro-6-fluoro-4-quinoliny)ethyl]-3-hydroxy-4-piperidinyl]amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E2;

N-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-4-piperidinyl)-2,3-dihydro[1,4]dioxino[2,3-*c*]pyridine-7-carboxamide dihydrochloride;

~~— *N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]oxazine-6-carboxamide;~~

~~— *N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide;~~

trans-6-[[[1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-3-methyl-4-piperidinyl]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E1;

trans-6-[[[1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-3-methyl-4-piperidinyl]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E1;

trans-6-[[[1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-3-methyl-4-piperidinyl]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E2;

trans-6-[[[1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-3-methyl-4-piperidinyl]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E2;

trans-4-[(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-3-piperidinol hydrochloride Enantiomer E1;

trans -4-[(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride Enantiomer E2;

trans -4-[(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride Enantiomer E1;

(3*S*,4*R*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol dihydrochloride Enantiomer E2;

(3*S*,4*R*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-4-[(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)amino]-3-piperidinol dihydrochloride Enantiomer E2;

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N-(2,3-dihydro-1-benzofuran-5-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine dihydrochloride;

6-[[1-(2-[3-fluoro-6-(methoxy)-4-quinoliny]-2-hydroxyethyl)-4-piperidinyl]amino]methyl}-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E1;

6-[[1-(2-[3-fluoro-6-(methoxy)-4-quinoliny]-2-hydroxyethyl)-4-piperidinyl]amino]methyl}-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E2;

6-[[1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]-2-hydroxyethyl)-4-piperidinyl]amino]methyl}-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E2;

6-[[1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]-2-hydroxyethyl)-4-piperidinyl]amino]methyl}-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E1;

6-[[1-(2-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]-2-hydroxyethyl)-4-piperidinyl]amino]methyl}-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E1;

6-[[1-(2-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]-2-hydroxyethyl)-4-piperidinyl]amino]methyl}-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E2;

1-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}ethanol dihydrochloride Enantiomer E1;

1-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}ethanol dihydrochloride Enantiomer E2;

1-[3,8-difluoro-6-(methoxy)-4-quinoliny]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}ethanol dihydrochloride Enantiomer E2;

1-[3,8-difluoro-6-(methoxy)-4-quinoliny]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}ethanol dihydrochloride Enantiomer E1;

1-[3-chloro-6-(methoxy)-4-quinoliny]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}ethanol dihydrochloride Enantiomer E2;

1-[3-chloro-6-(methoxy)-4-quinoliny]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}ethanol dihydrochloride Enantiomer E1;

1-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}ethanol dihydrochloride Enantiomer E2;

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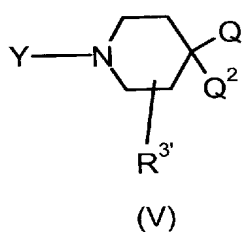
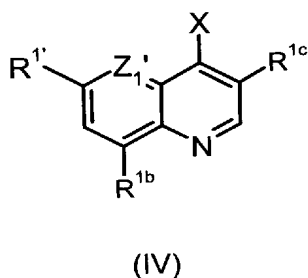
2-{4-[(2,3-dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)amino]-3-fluoro-1-piperidinyl}-1-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethanol dihydrochloride Enantiomer E2;

2-{4-[(2,3-dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)amino]-3-fluoro-1-piperidinyl}-1-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethanol dihydrochloride Enantiomer E1; and

7-[[1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-3-fluoro-4-piperidinyl)amino]methyl]-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride Enantiomer E2;

~~1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-N-[[8-(methoxy)-2,3-dihydro-1,4-benzodioxin-6-yl]methyl]-4-piperidinamine; and~~
~~1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-N-[(7-methyl-2,3-dihydro-1,4-benzodioxin-6-yl)methyl]-4-piperidinamine;~~
~~or a pharmaceutically acceptable salt thereof.~~

11. (Currently amended) A process for preparing compounds of formula (I), and pharmaceutically acceptable derivatives thereof, which process comprises reacting a compound of formula (IV) with a compound of formula (V):



wherein Z1', R1', R1b', R1c' and R3' are Z1, R1, R1b, R1c and R3 as defined in formula (I) or groups convertible thereto; Q1 is NHR4' or a group convertible thereto wherein R4' is R4 as defined in formula (I) or groups convertible thereto and Q2 is H or R3' or Q1 and Q2 together form an optionally protected oxo group;

(i) X is A'-COW, Y is H;

(ii) X is CH=CH2, Y is H;

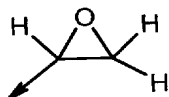
(iii) X is oxirane, Y is H;

(iv) one of X and Y is CO2R^Y and the other is CH2CO2R^X;

in which W is a leaving group, e.g. halo or imidazolyl; R^X and R^Y are (C₁₋₄)alkyl;

A' is A as defined in formula (I), or groups convertible thereto; and oxirane is:

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and thereafter optionally or as necessary converting Q^1 and Q^2 to NHR^4 ; converting A' , Z^1R^1 , R^{1b} , R^{1c} , R^3 , and R^4 to A , Z^1 , R^1 , R^{1b} , R^{1c} , R^3 , and R^4 ; converting A-B to other A-B, interconverting R^1 , R^{1b} , R^{1c} , R^3 , and/or R^4 , and/or forming a pharmaceutically acceptable derivative thereof.

12. (Original) A pharmaceutical composition comprising a compound according to claim 1 and a pharmaceutically acceptable carrier.

13. (Currently amended) A method of treating bacterial infections in mammals which comprises ~~administering~~ administering to a mammal in need thereof an effective amount of a compound according to claim 1.

14. (New) A compound according to claim 1 wherein R^5 is an aromatic heterocyclic ring (A) having 8-11 ring atoms including 2-4 heteroatoms of which at least one is N or NR^{13} , and Y^2 contains 2-3 heteroatoms, one of which is S and 1-2 are N, with one N bonded to X^3 .

15. (New) A compound according to claim 1 wherein R^5 is a heterocyclic ring (A) having ring (a) aromatic selected from optionally substituted benzo and pyrido and ring (b) non-aromatic and Y^2 has 3-5 atoms including a heteroatom bonded to X^5 selected from NR^{13} , O and S and $NHCO$ bonded via N to X^3 , or O bonded to X^3 .

16. (New) A compound according to claim 1 wherein R^5 is:

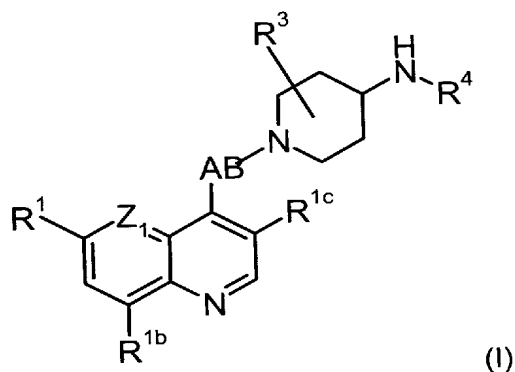
2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-yl;

3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-yl; or

3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl.

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17. (New) A compound according to formula (I):



wherein:

Z_1 is N or CR^{1a} ;

R^1 is F, Cl, OCH_3 , methyl, or SCH_3 ;

R^{1a} is H, OCH_3 , or $OCH_2CH_2OCH_3$;

R^{1b} is H or F; with the proviso that when Z_1 is N, then R^{1b} is H;

R^{1c} is Cl or F;

R^3 is up to two substituents selected from H, OH, OCH_3 , and CH_2OH ;

AB is CHR^6-CO or CHR^6-CH_2 ;

R^6 is H, NH_2 , $-CH_2OH$, or hydroxy; and

R^4 is a group $-U-R^5$ where U is CH_2 and R^5 is:

benzo[1,2,5]thiadiazol-5-yl;

4H-benzo[1,4]thiazin-3-one-6-yl;

2,3-dihydro-benzo[1,4]dioxin-6-yl;

benzo[1,2,3]thiadiazol-5-yl;

3-oxo-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl;

7-fluoro-3-oxo-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl;

2-oxo-2,3-dihydro-1H-pyrido[2,3-b][1,4]thiazin-7-yl;

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2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-yl;
3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-yl;
[1,2,3]thiadiazolo[5,4-b]pyridin-6-yl;
3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl;
7-chloro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl;
7-fluoro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl; or
2-oxo-2,3-dihydro-1H-pyrido[3,4-b][1,4]thiazin-7-yl;

or a pharmaceutically acceptable salt thereof.

18. (New) A compound according to claim 1 selected from:

{6-(trans)-1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]-3-hydroxypiperidin-4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)amine Enantiomer 2;

N-(1-[2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl]-4-piperidinyl)-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazine-6-carboxamide;

N-(1-[2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl]-4-piperidinyl)-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazine-6-carboxamide;

N-[(4-fluoro-1H-benzimidazol-2-yl)methyl]-1-[2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl]-4-piperidinamine;

{[(1-[2-[3-Fluoro-6-(methoxy)-5-naphthyridin-4-yl]ethyl]-4-piperidinyl)amino]methyl}-3,4-dihydro-1,8-naphthyridin-2-(1H)-one;

7-[(1-[2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl]-4-piperidinyl)amino]methyl}-2,3-dihydro-1,5-benzothiazepin-4(5H)-one;

trans-6-[(1-[2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl]-3-hydroxy-4-piperidinyl)amino]methyl}-2H-pyrido[3,2-b][1,4]thiazin-3(4H)-one Enantiomer E1;

6-[(trans-1-[2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl]-3-hydroxy-4-piperidinyl)amino]methyl}-2H-pyrido[3,2-b][1,4]thiazin-3(4H)-one Enantiomer E1;

N-(1-[2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl]-4-methyl-4-piperidinyl)-2,3-dihydro-1,4-benzodioxin-6-sulfonamide;

trans-1-[2-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl]-4-[(2,3-dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)amino]-3-piperidinol Enantiomer 1;

trans-1-[2-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl]-4-[(2,3-dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)amino]-3-piperidinol Enantiomer 2;

N-(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)-1-[2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl]-4-piperidinamine;

6-[(1-[2-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]ethyl]-4-piperidinyl)amino]methyl}-2H-pyrido[3,2-b][1,4]thiazin-3(4H)-one;

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1-{2-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]ethyl}-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-4-piperidinamine;
N-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]oxazine-6-carboxamide;
N-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide;
1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-*N*-[[8-(methoxy)-2,3-dihydro-1,4-benzodioxin-6-yl]methyl]-4-piperidinamine;
1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-*N*-[(7-methyl-2,3-dihydro-1,4-benzodioxin-6-yl)methyl]-4-piperidinamine;
and pharmaceutically acceptable salts thereof.

19. (New) A compound according to claim 1 selected from:

cis-4-[(2,3-Dihydro-[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amino]-1-[2-(3-fluoro-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-3-ol Enantiomer 1;

(*trans*)-6-(((1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4*H*-pyrido[3,2-*b*] [1,4]-thiazin-3-one Enantiomer 2;

1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-4-piperidinamine;

6-(((1-{2-[3,8-Difluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one;

N-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine;

(3*R*,4*S*)-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-[2-(3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl)ethyl]-3-piperidinol Enantiomer 1;

6-(((3*S*,4*R*)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one Enantiomer 2;

(3*R*,4*S*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol Enantiomer 1;
and

2-{4-[(2,3-Dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}-1-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethanol Enantiomer 1.

20. (New) A compound according to claim 1 which is a pharmaceutically acceptable salt of:

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cis-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-1-[2-(3-fluoro-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-3-ol Enantiomer 1;

(trans)-6-(((1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b] [1,4]-thiazin-3-one Enantiomer 2;

1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-N-(2,3-dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-4-piperidinamine;

6-(((1-{2-[3,8-Difluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinyl)amino)methyl)-2H-pyrido[3,2-b][1,4]oxazin-3(4H)-one;

N-(2,3-dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine;

(3R,4S)-4-[(2,3-dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol Enantiomer 1;

6-(((3S,4R)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)amino)methyl)-2H-pyrido[3,2-b][1,4]thiazin-3(4H)-one Enantiomer 2;

(3R,4S)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)amino]-3-piperidinol Enantiomer 1; or

2-{4-[(2,3-Dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)amino]-1-piperidinyl}-1-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethanol Enantiomer 1.

21. (New) A compound according to claim 1 selected from:

cis-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-1-[2-(3-fluoro-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-3-ol dihydrochloride Enantiomer 1;

(trans)-6-(((1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b] [1,4]-thiazin-3-one Dihydrochloride Enantiomer 2;

1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-N-(2,3-dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-4-piperidinamine dihydrochloride;

6-(((1-{2-[3,8-Difluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinyl)amino)methyl)-2H-pyrido[3,2-b][1,4]oxazin-3(4H)-one dihydrochloride;

N-(2,3-dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine dihydrochloride;

(3R,4S)-4-[(2,3-dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride Enantiomer 1;

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6-[[[(3*S*,4*R*)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer 2;

(3*R*,4*S*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol dihydrochloride Enantiomer 1; and

2-{4-[(2,3-Dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}-1-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethanol Dihydrochloride Hydrate Enantiomer 1.

22. (New) A method according to claim 13 wherein the mammal is a human.